

Application Serial No. 10/691,625

**IN THE DRAWINGS:**

Please amend Figure 1 as illustrated in red on the attached photocopies. Figure 1 has been amended to add the label --Prior Art--.

**REMARKS**

**Claim Rejections**

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph. Claims 1-3 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2 and 3 of copending Application No. 10/266,770 in view of Shurtleff (US 5,795,462) or Vankouwenberg et al. (US 5,582,690). Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over anyone of DE 20118966, Rhodes (US 5,772,843), Travis (US 5,082,525) or Erickson et al. (4,534,828).

**Drawings**

Applicant proposes to amend Figure 1, as illustrated in red on the attached photocopies. In Figure 1 it is proposed to add the label --Prior Art--. No "new matter" has been added to the original disclosure by the proposed amendments to this figure. Approval of the proposed drawing changes is respectfully requested.

The Examiner has objected to the drawings under 37 C.F.R. § 1.83(a) insofar as the connection of the check valve to the joint portion, referred to in Applicant's claim 1, was not illustrated in the figures. Since the term "joint portion" has been deleted from Applicant's new claims, it is not believed that any drawing corrections are necessary, except as discussed above.

**Double Patenting**

Applicant notes that U.S. Application No. 10/266,770 has now been abandoned, as shown on the attached Notice of Abandonment (Attachment 1). Since the previous application has been abandoned, there is not believed to be any outstanding issues regarding priority and/or double patenting. Applicant respectfully traverses the outstanding provisional rejection of the claims 1-3 under the judicially created doctrine

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of obviousness-type double patenting as being unpatentable over claims 2 and 3 of copending Application No. 10/266,770 in view of Shurtleff or Vankouwenberg et al.

### **New Claims**

By this Amendment, Applicant has canceled claims 1-9 and has added new claims 10-17 to this application. It is believed that the new claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. § 112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

The new claims are directed toward an evaporation apparatus for a solvent fuel comprising: an evaporation tank (2) having: a blower motor (21) connected to an interior of the evaporation tank by an air inlet pipe (24) and providing air into an interior of the evaporation tank; a pressure switch (22) measuring a pressure within the evaporation tank and controlling the blower motor; a gaseous fuel exit (23) communicating with the interior of the evaporation tank; and a check valve (25) located in the air inlet pipe and preventing back flow of the air and the solvent fuel; a fuel reservoir (3) connected to the evaporation tank by a fuel supply pipe (43) and an air conducting pipe (31), the solvent fuel including a liquid fuel and a gaseous fuel, the evaporation tank containing an evaporation tank portion of the liquid fuel, the fuel reservoir containing a reservoir portion of the liquid fuel; and a liquid fuel level controller (4) having a float bowl (41) and a gate switch (42) controlled by the float bowl, the liquid fuel level controller controlling a flow of the reservoir portion of the liquid fuel through the fuel supply pipe into the evaporation tank and maintaining the evaporation tank portion of the liquid fuel at a predetermined level.

Other embodiments of the present invention include: a rod shaped temperature gauge (26) measuring a temperature in the interior of the evaporation tank, a heating strip (28) located on a bottom portion of the evaporation tank, and a temperature controller (27) connected to the rod shaped temperature gauge and the heating strip, and controlling the temperature in the interior of the evaporation tank; the liquid fuel

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level controller is located in the evaporation tank; a fuel supplier (7) connected to the fuel supply pipe and located between the evaporation tank and the fuel reservoir, the liquid fuel level controller is located in the fuel supplier; and the fuel supplier has an extension pipe (76) connected to the air conducting pipe.

The first primary reference to DE 20118966 teaches a sealed container (1) having an air pump (2), an air inlet device (3), an air outlet device (4)m and a pressure regulator (5).

DE 20118966 does not teach a check valve located in the air inlet pipe and preventing back flow of the air and the solvent fuel; a fuel reservoir connected to the evaporation tank by a fuel supply pipe and an air conducting pipe; the fuel reservoir containing a reservoir portion of the liquid fuel; a liquid fuel level controller having a float bowl and a gate switch controlled by the float bowl; nor does DE 20118966 teach the liquid fuel level controller controlling a flow of the reservoir portion of the liquid fuel through the fuel supply pipe into the evaporation tank and maintaining the evaporation tank portion of the liquid fuel at a predetermined level.

The second primary reference to Rhodes teaches an evaporator having a tank (10) with a thermostat (76), a gas burner (58), a blower (36), and a thermometer (72).

Rhodes does not teach a check valve located in the air inlet pipe and preventing back flow of the air and the solvent fuel; a fuel reservoir connected to the evaporation tank by a fuel supply pipe and an air conducting pipe; the fuel reservoir containing a reservoir portion of the liquid fuel; a liquid fuel level controller having a float bowl and a gate switch controlled by the float bowl; nor does Rhodes teach the liquid fuel level controller controlling a flow of the reservoir portion of the liquid fuel through the fuel supply pipe into the evaporation tank and maintaining the evaporation tank portion of the liquid fuel at a predetermined level.

The third primary reference to Travis teaches a tank (1) containing a liquid (2) and having an air inlet (9), a heat source (23).

Travis does not teach a check valve located in the air inlet pipe and preventing back flow of the air and the solvent fuel; a fuel reservoir connected to the evaporation

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tank by a fuel supply pipe and an air conducting pipe; the fuel reservoir containing a reservoir portion of the liquid fuel; a liquid fuel level controller having a float bowl and a gate switch controlled by the float bowl; nor does Travis teach the liquid fuel level controller controlling a flow of the reservoir portion of the liquid fuel through the fuel supply pipe into the evaporation tank and maintaining the evaporation tank portion of the liquid fuel at a predetermined level.

The fourth primary reference to Erickson et al. teaches an evaporator apparatus (10) having an air inlet (32), a heater (17), and a flue assembly (18).

Erickson et al. does not teach a check valve located in the air inlet pipe and preventing back flow of the air and the solvent fuel; a fuel reservoir connected to the evaporation tank by a fuel supply pipe and an air conducting pipe; the fuel reservoir containing a reservoir portion of the liquid fuel; a liquid fuel level controller having a float bowl and a gate switch controlled by the float bowl; nor do Erickson et al. teach the liquid fuel level controller controlling a flow of the reservoir portion of the liquid fuel through the fuel supply pipe into the evaporation tank and maintaining the evaporation tank portion of the liquid fuel at a predetermined level.

Even if the teachings of DE 20118966, Rhodes, Travis, and Erickson et al. were combined, as suggested by the Examiner, the resultant combination does not suggest: a check valve located in the air inlet pipe and preventing back flow of the air and the solvent fuel; a fuel reservoir connected to the evaporation tank by a fuel supply pipe and an air conducting pipe; the fuel reservoir containing a reservoir portion of the liquid fuel; a liquid fuel level controller having a float bowl and a gate switch controlled by the float bowl; nor does the combination suggest the liquid fuel level controller controlling a flow of the reservoir portion of the liquid fuel through the fuel supply pipe into the evaporation tank and maintaining the evaporation tank portion of the liquid fuel at a predetermined level.

It is a basic principle of U.S. patent law that it is improper to arbitrarily pick and choose prior art patents and combine selected portions of the selected patents on the basis of Applicant's disclosure to create a hypothetical combination which allegedly

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renders a claim obvious, unless there is some direction in the selected prior art patents to combine the selected teachings in a manner so as to negate the patentability of the claimed subject matter. This principle was enunciated over 40 years ago by the Court of Customs and Patent Appeals in In re Rothermel and Waddell, 125 USPQ 328 (CCPA 1960) wherein the court stated, at page 331:

The examiner and the board in rejecting the appealed claims did so by what appears to us to be a piecemeal reconstruction of the prior art patents in the light of appellants' disclosure. ... It is easy now to attribute to this prior art the knowledge which was first made available by appellants and then to assume that it would have been obvious to one having the ordinary skill in the art to make these suggested reconstructions. While such a reconstruction of the art may be an alluring way to rationalize a rejection of the claims, it is not the type of rejection which the statute authorizes.

The same conclusion was later reached by the Court of Appeals for the Federal Circuit in Orthopedic Equipment Company Inc. v. United States, 217 USPQ 193 (Fed.Cir. 1983). In that decision, the court stated, at page 199:

As has been previously explained, the available art shows each of the elements of the claims in suit. Armed with this information, would it then be non-obvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law.

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In In re Geiger, 2 USPQ2d, 1276 (Fed.Cir. 1987) the court stated, at page 1278:

We agree with appellant that the PTO has failed to establish a *prima facie* case of obviousness. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination.

Applicant submits that there is not the slightest suggestion in either DE 20118966, Rhodes, Travis, or Erickson et al. that their respective teachings may be combined as suggested by the Examiner. Case law is clear that, absent any such teaching or suggestion in the prior art, such a combination cannot be made under 35 U.S.C. § 103.

Neither DE 20118966, Rhodes, Travis, nor Erickson et al. disclose, or suggest a modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's new claims.

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**Summary**

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

Date: January 4, 2006

By:

  
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10/266,770	10/09/2002	Ta-Ming Chuang	BHT-3129-85	7913
7590 12/14/2005			EXAMINER	
BRUCE H. TROXELL 5205 LEESBURG PIKE, SUITE 1404 FALLS CHURCH, VA 22041			MANOHARAN, VIRGINIA	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



# **Notice of Abandonment**

Application No.

10/266,770

Examiner

MANOHARAN

Applicant(s)

Chuang

Art Unit

1764

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

This application is abandoned in view of:

1. ☐ Applicant's failure to timely file a proper reply to the Office letter mailed on \_\_\_\_\_.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.  
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☐ No reply has been received.
2. ☒ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85):
  - (b) ☐ The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c) ☒ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

slk

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

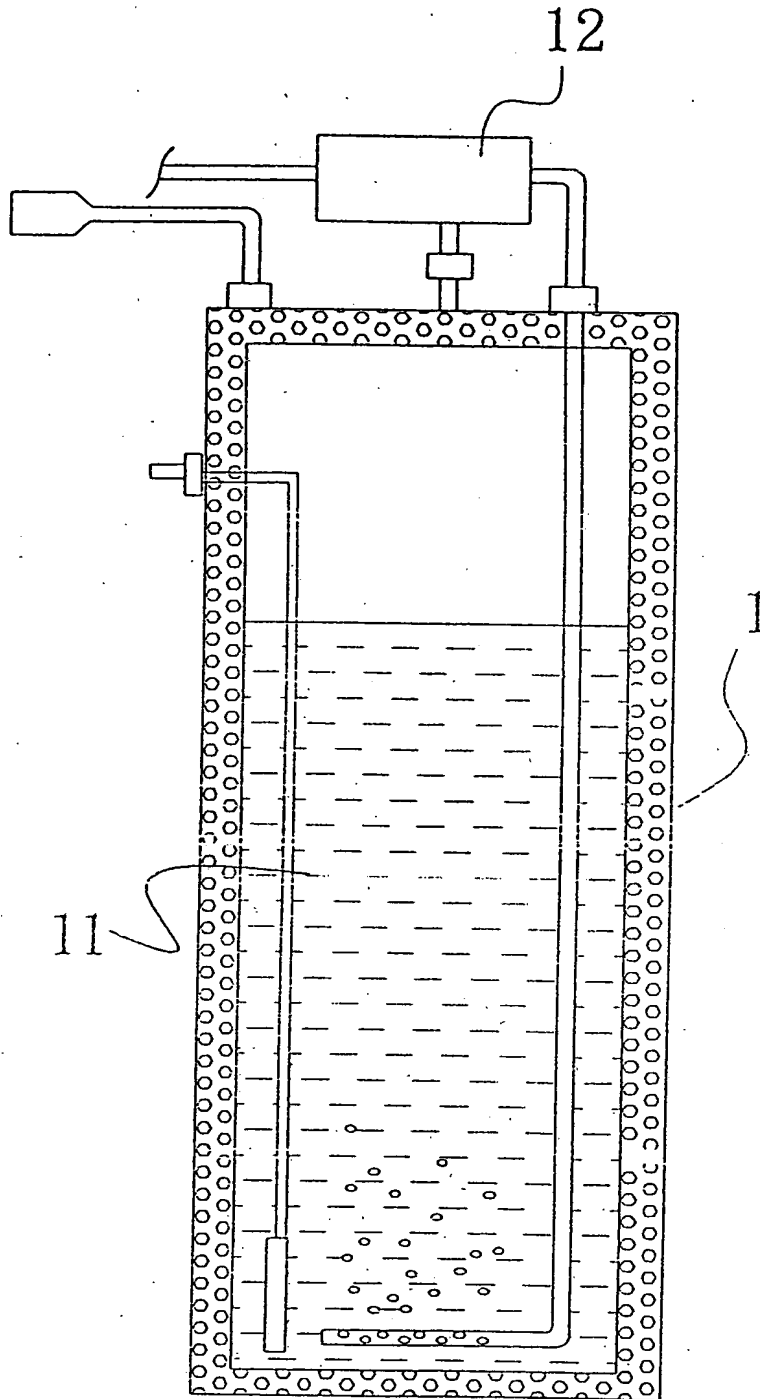


FIG. 1  
PRIOR ART